

US005661641A

United States Patent [19]

Shindo

[11] Patent Number:

5,661,641

[45] Date of Patent:

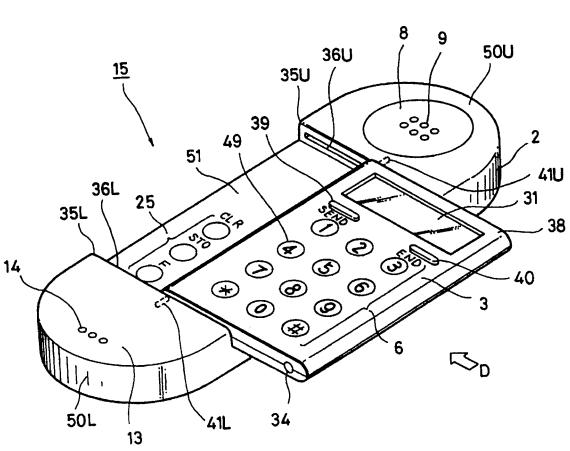
Aug. 26, 1997

Primary Examiner—Leo P. Picard Assistant Examiner—Anthony Dinkins Attorney, Agent, or Firm—Jay H. Maioli

[57] ABSTRACT

A portable information terminal includes a body casing which incorporates a function unit for transmitting and receiving information and has a groove portion with a plane bottom, and a card casing which is reversibly and slidably attached in the plane-bottom groove portion of the body casing and has an operation unit. The plane-bottom groove portion of the body casing has a rectangular shape with side surfaces opposed to each other and a pair of guide grooves are formed on the opposed surfaces thereof. The card casing has a rectangular shape substantially similar to that of the plane-bottom groove portion and has a pair of pins near the end portions of the opposed side surfaces. The card casing is attached to the body casing by inserting the pair of pins into the pair of guide grooves. The body casing includes a first light emitter and a first light detector and the card casing comprises a second light emitter and a second light detector which are respectively disposed so as to be opposed to the first light emitter and the first light detector when the portable information terminal is used. The body casing includes a second operation unit on a plane portion of the plane-bottom groove portion.

7 Claims, 9 Drawing Sheets



[54] PORTABLE TELEPHONE HAVING A REVERSIBLE AND SLIDING CARD CASING

[75] Inventor: Koji Shindo, Kanagawa, Japan

[73] Assignee: Sony Corporation, Tokyo, Japan

[21] Appl. No.: 655,437

[22] Filed: May 30, 1996

[30] Foreign Application Priority Data

50.51, 35 TS, 35 R; D14/257, 191, 181

[56] References Cited

U.S. PATENT DOCUMENTS

 5,369,788
 11/1994
 Nagai
 455/90

 5,494,447
 2/1996
 Zaidan
 361/681

FOREIGN PATENT DOCUMENTS